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# THE MASSACHUSETTS WATER RESOURCES COMMISSION

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## ANNUAL REPORT, FISCAL YEAR 2019



Commonwealth of Massachusetts

CHARLES D. BAKER  
Governor

KATHLEEN A. THEOHARIDES  
Secretary  
Executive Office of Energy and Environmental Affairs

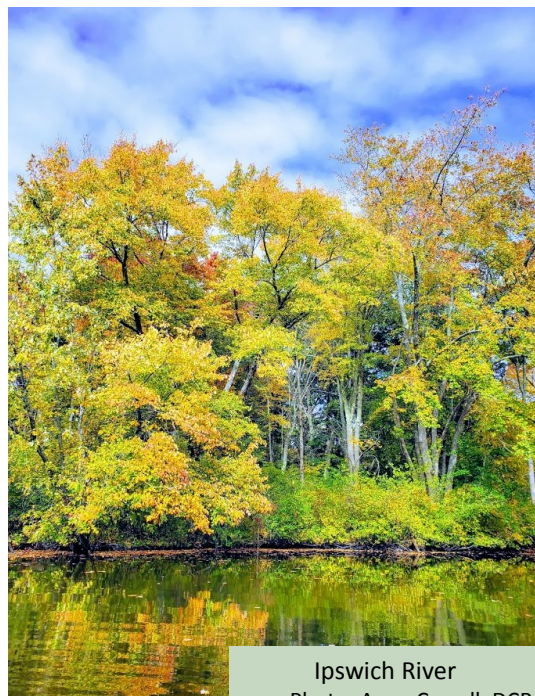
# MEET THE WATER RESOURCES COMMISSION

## THE COMMISSION'S ROLE AND STRUCTURE

The Water Resources Commission (Commission) was established in 1956 by the Massachusetts Legislature and is responsible for developing, coordinating, and overseeing the Commonwealth's water policy and planning activities to ensure that Massachusetts will have plentiful water to support health, safety, economic development, and ecological vitality for generations to come.

The eleven-seat Commission includes appointees from six state agencies and five public members.

The Commission's Executive Director, based at the Executive Office of Energy and Environmental Affairs (EEA), and its technical staff, based at the Department of Conservation and Recreation's (DCR) Office of Water Resources, work with state and federal agencies and members of the public to support the Commission's work.



Ipswich River  
Photo: Anne Carroll, DCR

## RESPONSIBILITIES OF THE COMMISSION

1. Spearhead **water policy** and **long-range water resources planning** for Massachusetts
2. Manage a **statewide precipitation network** for monitoring and critical research
3. Cooperate with the United States Geological Survey (USGS) to provide timely **scientific research and real-time hydrologic monitoring statewide**
4. Administer the **Interbasin Transfer Act** to ensure environmental protection when it is necessary to transfer water or wastewater between the major river basins of the state
5. Closely track hydrologic conditions, approve the Massachusetts Drought Management Plan and advise the state **Drought Management Task Force** in response to drought conditions
6. Provide **Water Needs Forecasts** for approximately 180 communities for their long-range planning and for use in applying for water withdrawal permits
7. Establish statewide **Water Conservation Standards** to encourage efficient use of water
8. **Review and approve water regulations** as mandated by statute
9. Provide a **forum for public input, coordination, and diverse viewpoints** on current and long-term water policies and issues at monthly meetings

**These responsibilities establish the scientific and policy foundation for the sustainability of Massachusetts' water resources.**



## PROGRAM DESCRIPTIONS AND FY 2019 WORK

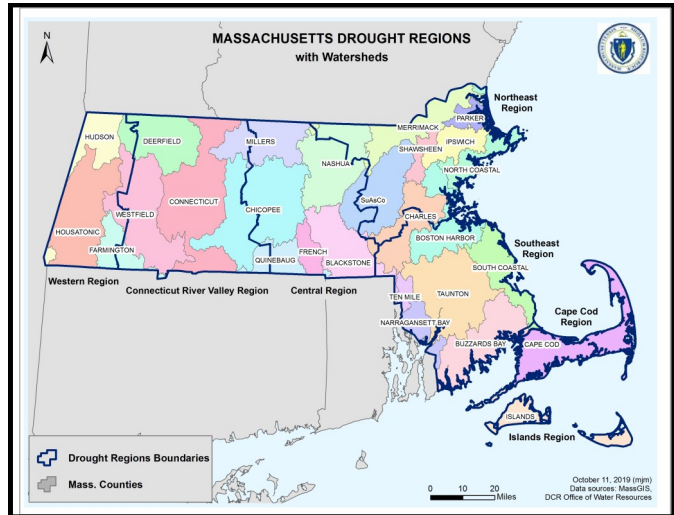
### TRACKING HYDROLOGIC CONDITIONS AND ADVISING ON DROUGHT

WRC staff monitors and analyzes water conditions monthly and produces a report covering precipitation trends, river conditions, groundwater levels, and levels at reservoirs, lakes, ponds, and other impoundments. Staff uses these data to monitor for droughts, inform the WRC, and advise the state's Drought Management Task Force.

Operational since 1956, the precipitation monitoring network provides data from 51 active stations in Massachusetts. These data are used to:

- monitor for drought
- support climate and other research
- update design standards for infrastructure

**In FY2019**, WRC staff, working with other agencies, initiated a comprehensive review of the *MA Drought Management Plan*, including the drought indices, methods used to determine drought, communications, and state and local actions to prepare for and respond to drought. Staff presented these draft revisions to the WRC and the public for comment. Staff subsequently presented a summary of major changes and comments received.



### THE USGS COOPERATIVE PROGRAM

The U.S. Geological Survey and the state have had a water resources partnership since 1904, when the state's first modern stream gage was installed in the Connecticut River. The program currently maintains:

- 58 real-time streamflow gages,
- 4 tidal gages,
- 4 weather stations, and
- 81 groundwater observation wells

**In FY2019**, in coordination with USGS and the State Geologist, staff completed the last phase of a 3-year USGS grant to replace 34 groundwater monitoring wells to ensure data validity and, for some wells at remote locations, improve efficiencies by allowing real-time data collection.



State Geologist Steve Mabee talking with students at USGS well replacement site

## PROGRAM DESCRIPTIONS AND FY 2019 WORK

### FLOOD HAZARD MANAGEMENT PROGRAM

EXECUTIVE ORDER 149 designated the Commission as the state coordinating agency to implement the National Flood Insurance Program (NFIP). Through the Commission's Flood Hazard Management Program (FHMP) staff provide technical assistance to NFIP communities on a wide range of matters, including floodplain management best practices, flood-resistant standards for construction, floodplain mapping issues, flood insurance questions, and mitigation options to reduce flood losses.

**In FY2019**, FHMP staff served on an interagency team that developed the [\*Massachusetts State Hazard Mitigation and Climate Adaptation Plan\*](#), the first state plan to integrate climate impacts and hazard mitigation planning. Other accomplishments include:

- 28 community assistance visits and 19 training events
- Almost 700 general technical assistance contacts to help Massachusetts' 341 NFIP communities
- Coordination with state, national, federal, and local partners to monitor and review floodplain development, mitigation projects, and local and regional resiliency efforts
- Coordination with other DCR leaders on agency-wide climate adaptation measures



King Tide, Ipswich, MA

Photo: MyCoast.org

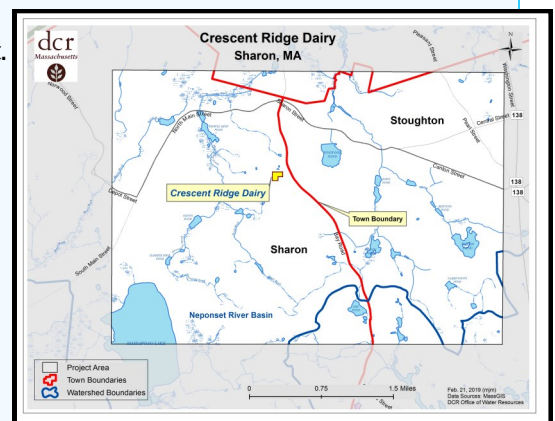
### THE INTERBASIN TRANSFER ACT (ITA)

The ITA protects Massachusetts' vital water resources and the communities that rely on them. It ensures:

- Communities transferring drinking water and wastewater between river basins practice water conservation
- Hydrology and environmental resources in the donor basin are protected
- The process is transparent and promotes robust public input

**In FY2019**, staff continued work on updating the ITA guidance documents, application materials, and performance standards, following promulgation of revised ITA regulations in FY2018. Staff also:

- Reviewed Ashland's request to join the MWRA. Based on staff's recommendation, the WRC approved this request.
- Reviewed a Request for Determination of Insignificance from Crescent Ridge Dairy in Sharon to transfer wastewater to the MWRA Sewer System via Stoughton. Based on staff's recommendation, the WRC found this request to be insignificant.
- Conducted pre-application meetings with Burlington, North Reading, and Auburn. Applications are expected to be submitted in FY2020.
- Monitored continued compliance with conditions for 12 previously approved ITA projects.



## PROGRAMS DESCRIPTION AND FY 2019 WORK

### WATER NEEDS FORECASTS

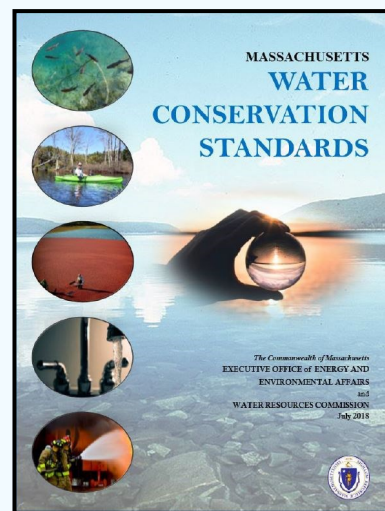
Commission staff work with public water suppliers to develop 15- to 20-year water needs forecasts, using a methodology approved by the Commission. The forecasts are used by suppliers in applying for Water Management Act (WMA) permits and in long-range planning.

**In FY2019** WRC staff worked with eight public water suppliers in six river basins (Blackstone, Ipswich, Boston Harbor, Merrimack, South Coastal, and Taunton basins) to review or revise water needs forecasts.

### WATER CONSERVATION STANDARDS

The Commission established the Massachusetts Water Conservation Standards (WCS) in 1992, setting statewide goals for water-use efficiency and providing guidance for effective conservation.

**In FY2019**, following a multi-year process and extensive public comment, staff finalized a comprehensive review and update of the **Standards**, incorporating the latest thinking on best practices and industry standards. Following up on recommendations in the standards, staff hosted a well-attended workshop for water suppliers on sustainable water rate structures. Staff also began design and planning efforts for a web-based water conservation toolkit to provide user-friendly resources and tools.



### OVERSIGHT OF STATE WATER PROGRAMS

By statute, the Commission reviews certain water regulations promulgated by the Department of Environmental Protection (DEP), and other water resource-related programs, providing a forum for public comment.

In addition, **in FY2019**, the Commission was briefed on the evolving science on the health risks of per- and polyfluoroalkyl substances (PFAS) and actions by MassDEP to establish a maximum contaminant level (MCL) standard for drinking water for these chemicals. The commission was also briefed on activities by several state agencies to eliminate lead in drinking water.

### WEBLINKS

INTERBASIN TRANSFER ACT: [www.mass.gov/interbasin-transfer-act](http://www.mass.gov/interbasin-transfer-act)

WATER DATA TRACKING: [www.mass.gov/dcr/water-data-tracking](http://www.mass.gov/dcr/water-data-tracking)

DROUGHT: [www.mass.gov/dcr/drought](http://www.mass.gov/dcr/drought)

FLOOD HAZARD MANAGEMENT PROGRAM: <https://www.mass.gov/guides/floodplain-management>

WATER NEEDS FORECASTS: [www.mass.gov/doc/water-needs-forecast-policy-and-methodology/download](http://www.mass.gov/doc/water-needs-forecast-policy-and-methodology/download)

WATER CONSERVATION STANDARDS: [www.mass.gov/service-details/details-on-the-2018-massachusetts-water-conservation-standards](http://www.mass.gov/service-details/details-on-the-2018-massachusetts-water-conservation-standards)

USGS: [www.mass.gov/cooperative-water-resource-planning-program](http://www.mass.gov/cooperative-water-resource-planning-program)



# COMMISSION MEMBERS AND KEY CONTACTS

## AGENCY MEMBERS:

### Exec. Office of Energy and Environmental Affairs

Chair & Member – **Kathleen Theoharides**,  
Secretary (as of May 2019)  
**Matthew A. Beaton**, Secretary (through April 2019)  
Designee – **Vandana Rao**,  
Commission Executive Director

### Dept. of Housing and Community Development

Member – **Janelle Chan**, Undersecretary  
Designee – **Linda Balzotti**

### Department of Conservation and Recreation

Member – **Leo Roy**, Commissioner  
Designee – **Anne Carroll**

### Department of Environmental Protection

Member – **Martin Suuberg**, Commissioner  
Designee – **Douglas Fine**

### Department of Agricultural Resources

Member – **John LeBeaux**, Commissioner  
Designee – **Hotze Wijnja**

### Department of Fish and Game

Member – **Ron Amidon**, Commissioner  
Designee – **Todd Richards**

### Office of Coastal Zone Management

(non-voting member)

Member – **Lisa Berry Engler**, Director  
(as of November 2018)  
**Bruce Carlisle**, Director (through November 2018)  
Designee – **Todd Callaghan**

## PUBLIC MEMBERS:

**Thomas Cambareri**, Centerville, MA

**Marcela Molina**, Boston, MA

**Vincent J. Ragucci**, North Reading, MA

**Kenneth Weismantel**, Hopkinton, MA

Vacancy

## KEY CONTACTS:

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Michele Drury, Assistant Director,  
DCR Office of Water Resources

Sara Cohen, Water Resources Specialist

Vanessa Curran, Water Resources Scientist

Erin Graham, Environmental Engineer

Marilyn McCrory, Water Resources Planner

Viki Zoltay, Hydrologist



Financing Sustainable Water Workshop, Nov. 2018

Cover photo: Mausert's Pond, Clarksburg State Park  
Photo by DCR Lakes and Ponds Staff